

Statement for the Record

submitted by

**John T. Wiltse
State Director, Office of Emergency Management,
State of Connecticut**

to the

**Subcommittee on National Security, Emerging Trends,
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for the hearing on

**“Emerging Threats: Assessing Public Safety and Security
Measures at Nuclear Plant Facilities”**

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Mr. Chairman, distinguished members of the Subcommittee on National Security, Emerging Threats, and International Relations, it is a privilege to appear before you. My name is John Wiltse and I am the State Director of the Connecticut Office of Emergency Management. The Connecticut Office of Emergency Management (OEM) is responsible for maintaining the state's Radiological Emergency Response Plan which primarily addresses emergency response to incidents at the state's only operating nuclear facility, the Millstone Power Station in Waterford, Connecticut. Additionally, this state plan provides procedural guidance to address the potential impact from incidents at nuclear plants in neighboring states. OEM serves as the lead agency for coordinating the state's all-hazards emergency management program.

Introduction

Like all critical issues facing government today, achieving progress in the nation's ability to deal with an unplanned event at a functioning nuclear plant is a reflection of the amount of time, personnel and resources that have been dedicated to the task. One of the basics of emergency planning is that planning must be continuous. Any emergency management professional who does not recognize this principle is simply not facing reality. I fully support the need in this post 9/11 environment to re-visit the planning standards and assumptions that have guided nuclear safety preparedness over the last 25 years and to make any prudent changes with allocated resources. However, this process should be done in a thoughtful, well-designed review process led by the federal government with representatives from multiple disciplines and all levels of government. Progress cannot and will not be made in an emotionally charged, finger-pointing environment.

Nuclear facility emergency planning is one of the most successful and long-standing working partnerships between federal, state, and local government and private industry in the emergency management profession. It must be if we are to be successful. Although like all emergencies, the responsibility for the first response to a nuclear emergency rests with local and state responders. The complexity and extent of response requires substantial planning involvement, guidance, evaluation, and resources from the federal government.

The fact is that the emergency planning process for nuclear facilities gives us a good blueprint to tackle some of the other more likely threats that we face today. We can take away many lessons learned from the nuclear public/private partnership and apply them to other key industries.

With 25 percent of the nation's power coming from the nation's 103 operating nuclear plants, nuclear incident readiness deserves all of our attention, efforts, and resources. The central question for emergency managers is not whether nuclear plants should or should not be shut down. The central question is how can we advance existing readiness?

It is also critical that we look at industry and government readiness as a whole, not just at one facility. If we determine there is a problem with emergency planning assumptions, standards, and procedures at one plant, then new standards will have to be applied to all.

What is the Threat and How Can it be Minimized?

One of the basic first steps in emergency planning is to appropriately define the threat that you are planning for. This is one of the most difficult issues facing nuclear preparedness planners because there has been so much non-scientific, emotionally-charged materials published since the attacks of 9/11. This is truly the first step that must be completed by the federal government to advance readiness. I can tell you that as a state emergency management director, I have not seen nor been provided any official document from the federal government defining the potential new threats, the likelihood of success of these threats, and any recommendations on how to prepare. If there are new threats and vulnerabilities, then let's define them and address them. If there are not – or the likelihood is so remote – then let's say so and re-focus the attention of our citizens on more likely threats.

On February 25, 2003, before this very committee, Dr. Hamre, President and CEO of the Center for Strategic and International Studies (CSIS) delivered an eight-month analysis of the current threats from terrorism facing our nation as part of the Silent Vector Exercise conducted in October, 2002. In an analysis of facility vulnerabilities and potential means of attack, Dr. Hamre and his staff concluded that chemical and liquefied natural gas facilities were quite vulnerable with a capacity to inflict substantial casualties over a wide geographical area following a massive release. In analyzing the security of nuclear facilities, CSIS found that they were extremely secure compared to other types of industrial facilities. This study concluded that for the large variety of potential terrorism attacks, such as vehicle bombs, ground assaults, sea-born attacks, etc., there was a low probability of success against nuclear facilities. The Silent Vector Exercise and analysis did point towards two important new focus areas for nuclear emergency planning. First, that some non-reactor structures within a nuclear plant facility could be vulnerable to some types of aviation attacks. Secondly, that credible terrorist threats and/or attacks, regardless of whether they involve nuclear facilities, could produce spontaneous evacuations around nuclear or other critical facilities due to existing fears.

It is this type of independent analysis and study that can greatly help direct resources, efforts, and emergency planning as well as provide unbiased information to the general public.

Obviously, additional analysis and study should be conducted before ordering any new regulatory actions. However, this review and evaluation of actual threats is important and should be systematically initiated by the federal government. Actions such as requiring the hardening or strengthening of critical soft structures,

implementing tighter, more permanent FAA flight restrictions, and assisting utilities in speeding the process of converting from water-based spent fuel storage to preferred dry-cask storage may be beneficial in the long term but can only be implemented at the federal level.

Proactive, positive threat and regulatory analysis by the federal government would also greatly reduce the fears of citizens who live in the vicinity of nuclear plants throughout the United States. Although much of this fear is founded on misinformation promulgated by advocacy organizations, as mentioned in James Lee Witt Associates' nuclear preparedness report for New York State (JLWA Report), the perceived lack of government review and progress towards advancing nuclear site security contributes to this anxiety. From feedback from local officials and the public near the Millstone Plant, I can verify that the successful placement and enforcement of no-fly zones around this plant in the weeks after 9/11 had a tremendous positive and calming impact on the public. When looking to address and combat the impact of spontaneous evacuation in the zones surrounding a nuclear plant, these types of proactive steps at the federal level can greatly reduce the burden placed on local and state emergency managers.

Most importantly, by recognizing that nuclear facilities are, as we speak today, very well protected and by targeting our resources to specific areas requiring improvement, we can then allocate limited resources and time to more vulnerable targets.

Because of the strict federal regulation and over 20 years of federal, state, and local government efforts, the nuclear industry's planning and response procedures available to respond to a nuclear incident are among the best in the nation. There is a grave danger in allowing the emotional nuclear debate to overshadow and undermine sound planning efforts. What is needed is to take some of these methods and steps applied to the nuclear industry over the last 20 years and begin to focus our attention on other, less regulated facilities that pose an even greater threat.

A General Lack of Resources

With all the attention and focus on nuclear plant preparedness since 9/11, one could only assume that there has been at least some substantial influx in federal resources to help states and local governments advance preparedness. Unfortunately, nothing could be further from the truth.

The reality is that there is a lack of financial and new technological resources provided to states and municipalities to assist with nuclear emergency preparedness. And, remarkably, there has been no change to this status quo since 9/11. The fact is that no federal agency currently provides direct, nuclear preparedness funding to states or municipalities. FEMA even stopped funding the calibration and maintenance of required field dosimetry equipment several years ago.

Beside the nuclear safety accounts funded by utilities in most states, the only other funding available to state and local governments to support nuclear preparedness is the general emergency management program grant (EMPG) funding from FEMA that is supposed to fund the nation's emergency management system backbone. Remarkably, the EMPG program has been flat-funded by Congress for the last 10 years and received a modest \$29 million increase to a national level of \$165 million for Fiscal Year '03. This \$165 million used to fund every emergency management office and requirement in the United States, including nuclear readiness, must be contrasted with the \$200 million earmarked for special terrorism consortiums and academic programs this year. Clearly, we have an issue with funding priorities.

One of the most surprising resource issues is the lack of federal support to the nation's host communities who are critical to emergency plans around all 103 operating nuclear plants. These pre-identified communities, if resourced correctly, could also be a valuable asset in the event of a large, non-nuclear terrorism incident. Host communities are responsible for receiving and processing large quantities of citizens evacuated from the 10-mile nuclear Emergency Planning Zone (EPZ). Services that they provide includes monitoring vehicles and citizens for radiation levels, decontamination, registration and family reunification, sheltering and feeding, and medical support. This is a tremendous responsibility and these municipalities receive no government funding to assist them.

Many of the valid recommendations of the JLWA Report call for the implementation and installation of new warning/notification, communications, information tracking, and modeling technologies currently available. This is a desperate need in the large majority of states with nuclear plants and will only start to be solved with dedicated federal funding.

I cannot help but echo the testimony of Westchester County Executive Anthony Spano before the Subcommittee on Economic Development, Public Buildings, and Emergency Management, last month who said, "we, as a county, have gone about as far as we can go." If nuclear safety is a priority at the federal level, then let's fund it accordingly.

Federal Support to State and Local Officials

Overall, the past technical and staff assistance provided to state and local officials by the Federal Emergency Management Agency (FEMA), responsible for off-site nuclear preparedness, has been solid and extremely helpful. It is hoped that this relationship will continue as FEMA merges into the new Department of Homeland Security and begin to be transformed into a more forward-looking, preventative approach. We hope that there will be an even greater mix of federal resources and expertise available to state and local officials. Clearly we must all lean forward and plan for and prepare for the unimaginable, even if the likelihood is remote. The FEMA REP program has been developed over the past 20 years and could be used as a

model to prepare for terrorist attacks against other potential targets such as chemical and petroleum facilities.

However, there is much more that could be done at the federal level and now is the time to define those tasks as the new Department of Homeland Security comes into existence.

There needs to be a much closer working relationship between FEMA and the NRC as well as the NRC and state and local governments. Although primarily responsible for on-site planning and licensee matters, much policy, procedures, and programs regarding nuclear facilities – such as the recent potassium iodide offer to states -- flow through the NRC.

Overall nuclear preparedness responsibility should be given to the new Department of Homeland Security with clear lines of communications to the NRC. In a post 9/11 environment and with the new Department that incorporates FEMA, now is the time to revisit and redefine the relationship between FEMA and the NRC, first established by President Carter in 1979, with an eye towards preparing for terrorist threats. As a first step, the existing Federal Radiological Preparedness Coordinating Committee (FRPCC), representing 17 federal member agencies and chaired by FEMA, should be reconstituted to become more effective at guiding and supporting state and local planning for radiological emergencies. It should also be expanded to include state and local representatives. To date, the FRPCC has been transparent and ineffective to community emergency managers in the field.

The Department of Homeland Security, in close cooperation with the NRC, should take the lead in initiating an immediate review and updating of NUREG 0654, "Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants," last revised in 1987. This joint NRC/FEMA document is the basis for all our off-site planning, training, and exercising. Only by reviewing, updating, and re-publishing this document, using the best technical and scientific minds in the country, can we truly advance off-site planning at the state and local level. Although much of the public focus is on Indian Point currently, there are 102 other operating nuclear plants in 31 states around the nation that potentially face similar issues. One of the most critical components of this review must be to examine the 10-mile EPZ that I discuss in more detail below.

FEMA is to be commended for moving within the last year to a more outcome-performance based exercise evaluation model rather than simply a compliance-based program. However, additional and expanded exercising will be one of our keys to success. Although planning requirements in NUREG 0654 and current exercises call for states and municipalities to prepare for all types of scenarios, regardless of cause, new exercise scenarios emphasizing fast-moving events, such as terrorist attacks, must be developed and modeled for use by state and local authorities. Additionally, FEMA's current exercise timetable of biennial evaluated exercises for plume (10 mile) events and every six years for ingestion pathway (50 mile) events and host community

exercises should be re-designed. Although we exercise every year in Connecticut to keep our state and local resources ready, we must all work to increase the frequency of evaluated exercises.

The Planning Bases (10 and 50 mile Zones) and Evacuation Planning

A central issue surrounding the Indian Point controversy is the validity of current planning bases or standards regarding the types of public protective actions, such as evacuation, *between* the current 10 to 50 mile planning zones. Are we as state and local emergency planners using solid planning standards in this post 9/11 environment or not? The question is central to the future of nuclear preparedness in the United States. Most significantly, this question can only be answered at the federal level.

Clearly there is a lack of public understanding about how and why the scientific community established the current planning bases. Additionally, there is little recognition that state and local governments do have public protective measures in place between 10 and 50 miles all in accordance with federal guidance. These plans include procedures for air and water monitoring, embargoes of food products, warnings and guidance for agricultural facilities, and preparations for select area relocations if contamination levels are too high.

In June 1980, the NRC and the Environmental Protection Agency (EPA), in consultation with technical experts and scientists, established the 10-mile Emergency Planning Zone (EPZ) and the 50 mile Ingestion Pathway Zone as planning and response bases. Both these standards, and the specific requirements for each as outlined in NUREG 0654, were established with consideration of the worst case scenario – that is, a massive, release of radioactivity from an uncovering of the fuel rods in the reactor's core. In brief, the federal government set the 10-mile zone as the potential area where radiation levels might require protective measures, such as sheltering and evacuation. Because contamination dissipates as it spreads further from the source, the NRC/EPA Task Force determined the zone from 10 to 50 miles would experience much lower levels allowing continued human existence in most areas with some precautions such as protecting the food and water supply. This 10-mile planning standard has never meant to indicate that radioactive material would “magically” stop at the 10-mile limit. Rather, this parameter was chosen to define the area where the public may need to take *immediate* precautionary actions in the event of a nuclear release because of the potential for higher, harmful levels of radiation.

Therefore, when we speak of state and local REP plans, these plans primarily detail actions and procedures for the 10 mile zone including warning systems, traffic management, sheltering, evacuation, the use of host communities to monitor and shelter evacuees, separate school plans, etc. In 2002, the NRC and FEMA added the public use of KI as an additional precautionary action available to states on a voluntary (not required) basis within the 10-mile EPZ.

Now in a post 9/11 environment, it is prudent to ask if these planning standards are still valid. Should the planning zones be expanded, reduced, or otherwise modified and what new planning criteria and precautionary actions should be implemented in these modified zones? Are we endangering those most at risk within the 10-mile zone by considering expansion of this zone? Clearly, the scientific community must answer these questions before emergency managers can modify their plans.

We do know some facts about the current planning bases that are important to highlight. First, the zones and their corresponding protective actions were based on a worst case scenario, that is a massive release of radioactivity, regardless of the cause. Nothing has occurred in the nuclear industry since 9/11 to increase the amount of radioactivity in operating nuclear plants and in fact, since the planning bases were established 23 years ago, many advances have been made to nuclear fuel to reduce the hazards from a nuclear accident. We are aware of no studies or scientific evidence to indicate that the existing planning bases are invalid and need to be changed. The use by advocacy groups of terminology such as a 17.5 mile “peak death zone” and 50 mile “peak injury zone” are not recognized terms and have been discounted by the scientific community, including the JLWA Report.

Finally, in the unlikely event of a fast-breaking, massive release incident, immediate sheltering, not evacuation, will be the likely and plausible protective action recommended in the downwind area. Just as when faced with a sudden violent storm such as a tornado, it would be illogical to recommend evacuation of citizens into a highly contaminated environment that will dissipate with time.

We do call on the NRC and FEMA to immediately re-evaluate the current planning bases through a comprehensive study and announce this information to the American public. This re-certification and/or modification of the emergency planning standards is an essential first step in reducing nuclear incident anxiety throughout the United States and addressing new planning challenges, several of which were outlined in the JLWA Report. Meanwhile, the federal government should work with states and localities in designing appropriate new public precautionary measures for those areas beyond the 10 mile EPZ to address the realities of spontaneous evacuation and the need for more focused and accessible public information during an emergency.

Plant Security

States, municipalities, and utilities working together have made great deal of progress in the area of plant security by working together with the NRC and tapping their own resources.

Through a series of new security orders, the NRC has done a good job of working with the licensees to implement new procedures and providing specific guidance on steps to be taken at the different national homeland security threat levels.

Overall the security bar for nuclear facilities – previously set very high – has been appropriately raised. These procedural and physical improvements are clearly noticeable at Millstone Station and reflect the overall responsiveness of the industry.

As Dr. Hamre stated following the Silent Vector Exercise, “Nuclear plants ... are probably our best defended targets. There is more security around nuclear plants than around anything else we’ve got. ... One of the things we have clearly found in this exercise is that this industry has taken security pretty seriously for quite a long time and its infrastructure, especially against these types of terrorist threats, is extremely good.”

It is also our understanding that the NRC is undertaking a review of the existing design basis threat for which nuclear facilities must plan to defend against. This is a prudent step post 9/11 and should be completed expeditiously with the involvement of the Department of Justice, Department of Homeland Security, and other key federal agencies.

The NRC has also done a fairly thorough job of synthesizing, declassifying, and distributing relevant intelligence and threat information to the licensees and to appropriate state agencies. Frankly, 18 months after the attacks of 9/11, NRC intelligence and threat advisories are the only written guidance from federal agencies being distributed to most state emergency management agencies. FEMA has yet to distribute a single threat advisory bulletin to state or local emergency management officials. This is unacceptable and must be changed immediately under the new Department of Homeland Security.

Despite the efforts of the NRC to upgrade on-site security procedures, there has been little to no new guidance from federal agencies regarding recommended changes to off-site planning, training, or exercising. And, of course, there have been no new federal resources to help state and local agencies implement new security measures in support of nuclear facilities.

Nevertheless state and local authorities have initiated many security improvements and planning steps utilizing their own resource in partnership with utility owners. In Connecticut, the local FBI office now maintains direct liaisons with plant security directors, exchanging information and guidance. Federal, state, local, and plant law enforcement/security personnel conducted a series of security exercises at Millstone in 2002 resulting in new procedures and protocols. With each change in the nation’s homeland security levels, Millstone stakeholder organizations confer to review the plant’s security status and implement any additional measures required, each prepared to provide additional resources. The Connecticut National Guard has invested considerable resources in developing a “quick reaction force” to respond to any needs at Millstone or other key state infrastructure sites. A Memorandum of Agreement has also been negotiated between the state and the utility outlining how they can access a variety of additional state security resources.

Although nuclear site security is very strong and states and towns have stepped up to the plate to provide additional resources in the short term, we encourage the consideration of dedicated federal funding and/or additional security forces to supplement existing plant security measures. This type of assistance would help alleviate the security burden now resting with individual utilities and state and local governments.

Connecticut, Indian Point, and Realistic Evacuation Planning

As a congested state and a neighbor to New York, we are concerned about the issue of evacuation planning for all hazards, not just nuclear incidents. These are our citizens and their fears are real and palpable, regardless of what the actual threats may or may not be.

Urban emergency transportation management and evacuation planning is a serious issue and should be a national priority post 9/11. What we would like to see developed are flexible, technologically-based regional all-hazards traffic management plans for all highly-populated areas of the United States. These plans and computer systems would help provide decision-makers with route and traffic flow options based on the particular on-going emergency. This work would need to include prior route planning, computer-based modeling and systems support, real-time visibility of traffic routes and systems, and of course, greater use of mass transit systems. Connecticut is currently working with the Department of Justice to identify potential support to initiate development of such a pilot transportation management plan.

Evacuation can be a critical response for many types of hazards, natural or man-made. Evacuation and emergency traffic management should be a heightened planning and resource priority of the new Department of Homeland Security working in cooperation with state and local officials.

Conclusion

Emergency management professionals around the United States have been doing a formidable job of planning for and responding to all threats to our homeland. They will continue to do so, no matter what challenges they are faced with. However, to be successful two key items are necessary: clear and coordinated guidance from federal regulatory agencies and the tools to get the job done.

I would like to summarize the recommendations I have shared with you today.

1. The new Department of Homeland Security should be charged with coordinating the nation's response to a nuclear plant incident and developing clear and close ties with the NRC.

2. The Department of Homeland Security, in conjunction with the NRC, should complete an evaluation of potential threats to the nation's nuclear plant infrastructure and order any necessary regulatory changes to reduce the impact of man-made events. This review should include consideration of federal financial and/or personnel resources to assist with standardizing and maintaining plant security requirements.
3. The Department of Homeland Security and the NRC should initiate an immediate, scientific analysis of the current off-site nuclear planning standards based on the post 9/11 environment and issue any required changes in an update to NUREG 0654. Additionally, federal agencies should immediately work with state and local officials to implement new exercise standards and develop comprehensive nuclear public information programs to improve overall citizen preparedness.
4. Congress should increase and target funding for the nation's emergency management structure to improve preparedness for potential nuclear incidents, including greater investments in nuclear warning, communications, information management, and modeling systems. Towns with nuclear plan responsibilities should be eligible for new federal funding, helping to create a national network of "advanced" municipalities capable of responding to a variety of large disasters.
5. All-hazards, urban traffic management plans and response systems should be made a priority at the national level. Pilot programs should be initiated in cooperation with state and local officials.

We look forward to advancing our nuclear preparedness through continued, effective partnerships in the months and years ahead. I would be happy to address any questions that you may have.

Thank you.